

## REMARKS

Claims 1-8 are pending in the present application. Claims 1-6 have been amended. New claims 7-8 have been added.

The specification was objected to as not including a brief description of the drawings. A brief description of the drawings section has been added. No new matter has been added. Claims 1-6 were rejected under 35 USC §112, second paragraph as being indefinite.

Claims 1 and 2 have been amended into proper US format to make clear the structural limitations.

Claim 2 has been amended to provide antecedent bases for "hot center zone".

Claim 3 recites a means for supply. The means for supply is duct 2.

Claims 4 and 5 have been amended to make clear the structural limitations.

Claim 5 was also amended to provide antecedent basis for "supply of reducing agents".

Claims 1, 3 – 5 were rejected under 35 USC § 102(a) as being anticipated by US Patent No. 5589142 (*Gribbons*), claim 1 recites

Equipment for the purification of gases comprising at least one heat exchanging matrix, said matrix adapted to heat gas in a regenerative process is heated to oxidation or decomposition temperature, the at least one heat exchanging matrix comprises at least three zones, at least one zone is a catalytic zone is catalytically active in promoting reduction of nitrogen oxides and at least one zone is a hot zone said catalytic zone is spaced a distance from the hot zone and has a temperature below the oxidation or reduction temperature.

*Gribbons* does not teach or suggest equipment with all the limitations of claim 1. In *Gribbons*, the catalytic beds 22, 24 are located next to the heating zone. See, e.g. Fig. 1 Col. 2 lines 25-30 and Col. 2, line 1- Col. 4, line 30. The regenerator beds 14, 16 are not catalytic zones. See, e.g. Col. 2 lines 60-62. Thus, *Gribbons* does not teach or suggest

locating the catalytic zone away from the hot zone. It teaches locating the catalytic zone close to the hot zone.

The self-combustion of the present invention occurs at very high temperatures close to the hot zone. The catalytic zone(s) are arranged a distance from the hot zone where the temperature has fallen below a point where the catalytic material will not be damaged. The reverse situation exists in *Gribbons*, the *Gribbons* device locates the catalytic beds close to the heater. Thus, the *Gribbons* device is not adapted to heat the gas to the oxidation or decomposition temperature. Thus, independent claim 1 and claims 3-5 and 7 are patentable.

Claims 2 and 6 were rejected under 35 USC §103(a) as being obvious over *Gribbons* in view of US Patent No. 5262131 (*Bayer*). Claim 2 recites

Equipment for the purification of gases comprising a single heat exchanging matrix where the gas is heated in a regenerative process to oxidation or decomposition temperature, characterized by that the heat exchanging matrix comprises two zones that are catalytically active and situated on each side of a hot center zone of the matrix and each catalytic zone is spaced a distance from the hot center zone and has a temperature below the oxidation temperature.

*Gribbons* does not teach or suggest equipment with all the limitations of claim 2. In *Gribbons* the catalytic beds 22, 24 are located next to the heating zone. See, e.g. Fig. 1 Col. 2 lines 25-30 and Col. 2, line 1- Col. 4, line 30.

The regenerator beds 14, 16 are not catalytic zones. See, e.g. Col. 2 lines 60-62. Thus, *Gribbons* does not teach or suggest locating the catalytic zone away from the hot zone. It teaches locating the hot catalytic zone close to the zone.

*Bayer* does not make up the deficiencies in *Gribbons*. Thus, independent claim 2 and claims 6 and 8 are patentable. The self-combustion of the present invention occurs at very high temperatures close to the hot zone. The catalytic zone(s) are arranged a distance from the hot zone where the temperature has fallen below a point where the catalytic material will not be damaged. The reverse situation exists in *Gribbons*, the *Gribbons* device locates the catalytic beds close to the heater. Thus, the *Gribbons* device is not adapted to heat the gas to the oxidation or decomposition temperature. Thus, independent claim 1 and claims 3-5 and 7 are patentable.

### **CONCLUSION**

Applicant asserts that all of the objections have been obviated and, therefore now respectfully requests withdrawal of the objections, and allowance of the application.

### **REQUEST FOR EXTENSION OF THE TERM**

Applicant respectfully requests an extension of the normal term which expired on June 1, 2004, for two months, to August 2, 2004.

The Commissioner is hereby authorized to charge Deposit Account Number 04-2219 \$420 to cover the cost of the extension. Any deficiency or overpayment should be charged or credited to Deposit Account Number 04-2219, referencing our Docket Number 11761.

Respectfully submitted,

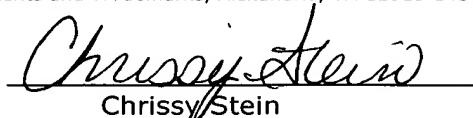


Catherine L. Gemrich  
Attorney Registration No. 50473  
Attorney for Applicant

ORUM & ROTH  
53 WEST JACKSON BOULEVARD  
CHICAGO, ILLINOIS 60604-3606  
TELEPHONE: (312) 922-6262

### **CERTIFICATE OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Alexandria, VA 22313-1450, on August 2, 2004.

  
Chrissy Stein